CINT2000 Result

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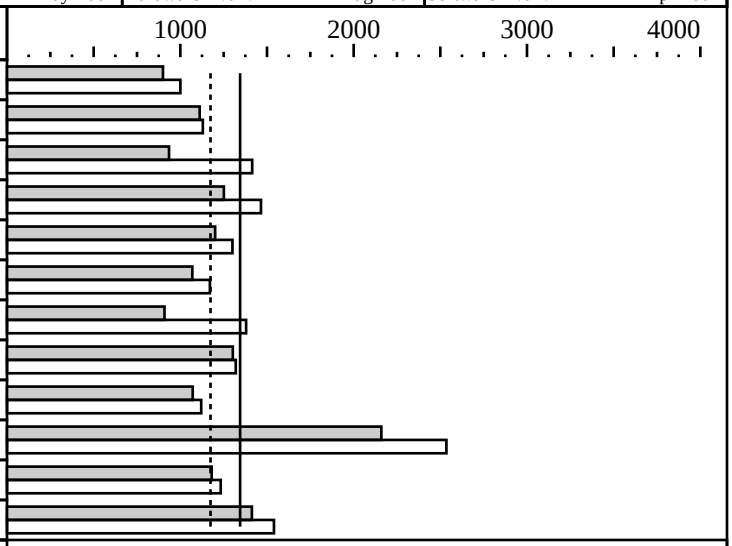
Fujitsu Limited
PRIMEPOWER650 (1890MHz)

SPECint2000 = 1345

SPECint_base2000 = 1174

SPEC license #: 19 | Tested by: Fujitsu Limited | Test date: May-2004 | Hardware Avail: Aug-2004 | Software Avail: Apr-2004

Benchmark	Reference Time	Base Runtime	Base Ratio	Runtime	Ratio
164.gzip	1400	156	900	140	1000
175.vpr	1400	126	1112	124	1130
176.gcc	1100	118	935	77.8	1415
181.mcf	1800	144	1251	123	1465
186.crafty	1000	83.3	1201	76.9	1301
197.parser	1800	168	1069	154	1171
252.eon	1300	143	909	94.2	1379
253.perlbmk	1800	138	1303	136	1320
254.gap	1100	103	1072	98.2	1120
255.vortex	1900	88.0	2160	74.9	2535
256.bzip2	1500	127	1181	122	1233
300.twolf	3000	212	1413	195	1540



Hardware

CPU:	SPARC64 V
CPU MHz:	1890
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 1 core/chip
CPU(s) orderable:	1 to 8 (increments of 1)
Parallel:	None
Primary Cache:	128KBI + 128KBD on chip
Secondary Cache:	3MB(I+D) on chip
L3 Cache:	None
Other Cache:	None
Memory:	8192MB
Disk Subsystem:	1 x 36.4GB SCSI (10000rpm)
Other Hardware:	None

Software

Operating System:	Solaris 9 4/04
Compiler:	Fujitsu Parallelnavi 2.3 with patch 913287-01 Sun Studio 8 Sun Performance Library 8
File System:	ufs
System State:	multi user

Notes/Tuning Information

```
FDO: (for Parallelnavi 2.3)
fdo_pre0=rm -rf ‘pwd‘/*.f.d
PASS1=-Kpg
PASS2=-Kpu=$(EXEBASE).fbk
FDO: (for Sun Studio 8)
fdo_pre0=rm -rf ./feedback.profile ./SunWS_cache
PASS1=-xprofile=collect:./feedback
PASS2=-xprofile=use:./feedback

Integer base flags:
(using C compiler of Sun Studio 8)
-fast -xtarget=ultra3cu -xipo=2 ONESTEP=yes FDO
(using C++ compiler of Sun Studio 8)
-fast -xchip=ultra3cu -xarch=v8plusb -xipo=2 ONESTEP=yes

Integer peak flags:
(using C compiler of Parallelnavi 2.3)
300.twolf:    -Kfast_GP2=3,GREG,eval,preex,cfunc -O3 ONESTEP=yes FDO
```

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Notes/Tuning Information (Continued)

```
(using C compiler of Sun Studio 8)
164.gzip:     -xO5 -xarch=v8plusb -xchip=ultra2 -xcache=128/64/2:4096/64/4
              -xalias_level=std -xipo=2 -xprefetch -W2,-whole,-Ainline
              -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
175.vpr:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=std -xchip=ultra -xipo=2 -xprefetch=latx:1.6
              -xsfpconst -W2,-whole -Wc,-Qeps:do_spec_load=1,
              -Qeps:enabled=1,-Qeps:rp_filtering_margin=100,
              -Qiselect-funcalign=64 -lmopt -lm ONESTEP=yes FDO
176.gcc:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -W2,-whole -Wc,-Qgsched-T4,-Qgsched-trace_late=1,
              -Qiselect-funcalign=64 -ll2amm ONESTEP=yes FDO
181.mcf:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xprefetch_level=3 -W2,-Apf:llist=3:noinnerllist
              -Wc,-Qeps:enabled=1 ONESTEP=yes FDO
186.crafty:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -xpagesize=512K -W2,-Ashort_ldst
              ONESTEP=yes FDO
197.parser:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -xregs=syst
              -Wc,-Qgsched-T6,-Qgsched-trace_late=1,
              -Qipa:valueprediction,-Qiselect-funcalign=64
              ONESTEP=yes FDO
253.perlbmk:  -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo=2 -xalias_level=std -Wc,-Qeps:enabled=1,
              -Qiselect-funcalign=64 ONESTEP=yes FDO
254.gap:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xalias_level=strong -xipo=2 -xprefetch_level=3
              -xprefetch=latx:2.0 -xvector -W2,-Abcopy
              -Wc,-Qiselect-funcalign=64 ONESTEP=yes FDO
255.vortex:   -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xchip=ultra -xipo=2 -xrestrict -xprefetch=latx:1.6
              -W2,-Aheap,-Ainline:recursion=1:cs=500:irs=6000,-Aunroll,-crit,
              -Ms15,-Mt300,-Mr6000,-reroll=1 -Wc,-Qdepgraph-early_cross_call=1,
              -Qeps:do_spec_load=1,-Qeps:enabled=1,-Qiselect-funcalign=64,
              -Qpeep-Sh0 -ll2amm ONESTEP=yes FDO
256.bzip2:    -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -xipo -xalias_level=strong -xregs=syst -xrestrict
              -xprefetch=latx:0.8 -W2,-Abopt -Wc,-Qiselect-funcalign=64,
              -Qeps:enabled ONESTEP=yes FDO

(using C++ compiler of Sun Studio 8)
252.eon:      -fast -xarch=v8plusb -xchip=ultra3cu -xcache=128/64/2:4096/64/4
              -noex -xalias_level=compatible -xipo=2 -xregs=syst -xunroll=3
              -Qoption cg -Qeps:enabled=1,-Qeps:ws=32,-Qgsched-T4,
              -Qgsched-trace_late=1,-Qiselect-funcalign=64
              -Qoption iropt -Mt2000 -lmopt ONESTEP=yes FDO

Portability:
176.gcc:      -Dalloca=__builtin_alloca -DHOST_WORDS_BIG_ENDIAN
186.crafty:   -DSUN
252.eon:      -library=iostream
253.perlbmk:  -DSPEC_CPU2000_SOLARIS
254.gap:      -DSYS_IS_USG -DSYS_HAS_TIME_PROTO -DSYS_HAS_SIGNAL_PROTO
              -DSYS_HAS_CALLOC_PROTO -DSYS_HAS_IOCTL_PROTO
```

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Notes/Tuning Information (Continued)

```
System Tunables:
(for /etc/system)
      set consistent_coloring=1
      set tune_t_fsflushr=86400
      set autoup=86400

Shell Environments:
      Stack size set to unlimited via "ulimit -s unlimited"
      MPSSHEAP=4M
      MPSSSTACK=4M
      LD_PRELOAD=mpss.so.1


System board used with only ONE CPU present.

Small configuration memory system mode used ("4cpu mode", enabled via front panel).

Sun Studio 8, posted at URL http://wwws.sun.com/software/products/studio/
was used for this submission.
```